

Presentation Title:

Presentation Subtitle



SOLID WASTE

MANAGEMENT

CONSULTANTS

Presented by:

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FL SWANA

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STEVE SIMMONS

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- Over 35 years of experience leading solid waste management and renewable energy infrastructure projects in the environmental and energy services sectors.
- Steve has worked with leading international energy operating companies and engineering/consulting firms and is highly experienced in:
 - Program and project management
 - New business development, business financial modeling, and profit and loss management
 - Waste and power marketing
 - Technology evaluation
 - Facility design, procurement, and construction



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GBB Vision

A world where discarded materials are used as resources rather than wasted



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We All Know Recycling is Challenging Now



Opinion / Viewpoints

Worldwide crisis in recycling markets hits Broward | Opinion

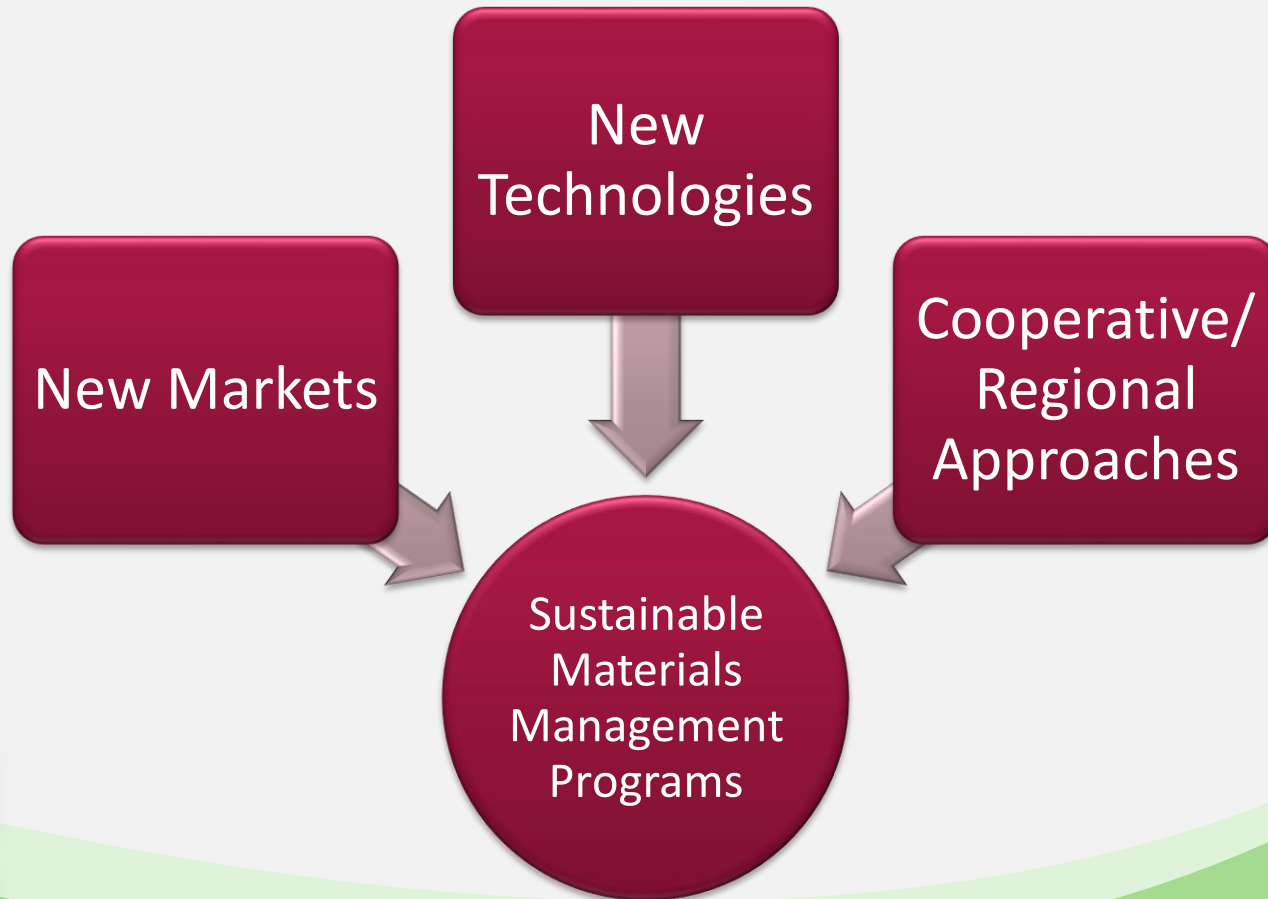
Challenges facing Florida's Recyclables Market:

- Pressure on MRF Operators and Waste Haulers to increase quality of recyclables
- Downward pressure on recyclables Prices
- Oversupply of regional recyclables markets
- Higher Municipal Recycling Contracts



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What is Needed to Increase Landfill Diversion Rates?



A New Class of Waste Conversion Facilities Started Commercial Operation in 2019

Entsorga West Virginia

- This facility began commercial operations in May 2019 in Martinsburg, WV. It is located on a closed landfill site and produces a solid fuel for a local cement manufacturing facility.

RePower South

- This facility is in Monks Corner, SC and began operations in 2019. Two facilities create renewable fuel products for use as a coal substitute.

Fiberight, LLC

- This facility is located outside of Bangor, ME. In 2019, they began operation of a facility to 180,000-ton per year recover and produce an array of products.



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Conversion Technology Overview: Mechanical-Biological Treatment

- Mechanical-Biological Treatment Technology (MBT) encompasses a **broad array of technologies which use mechanical and biological processes** to recover valuable recyclables, stabilize organic material, recover energy, and produce products for sale.
- MBT facilities are **widely adopted in the European Union** where they recover recyclables and produce **Solid Recovered Fuel (SRF)** which may be used as a substitute for coal.
- Large industrial firms, such as cement manufacturers, utilize SRF as a component of their corporate sustainability plans.



Conversion Technology Overview:

Entsorga West Virginia - Martinsburg, WV

Facility

- **Processing Capacity Max:** ~ 500 tpd of MSW
- **Recoveries:** Metals
- **Product:** Solid Refined Fuel (SRF)

Economics

- **Investment:** \$50 million
- **Tipping fees:** ~ \$50 per ton



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Conversion Technology Overview: RePower South - Moncks Corner, SC

Facility

- **Processing Capacity Max:** ~ 600 tpd of Mixed Waste
- **Recoveries:** Traditional Recyclables (Plastics, Metals, OCCs)
- **Product:** ReEngineered Feedstock Fuel (ReEF)

Economics

- **Investment:** ~ \$55 million project
- **Tipping fees:** \$38 per ton



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Conversion Technology Overview: Cement Kilns In Florida



America's Cement Manufacturers™

	Florida		National
	Cement	Cement & Related	Cement
Employees	905	11,565	12,229
Payroll (\$)	58,802,495	480,496,452	\$1.1 billion
Contribution to State Taxes Revenues (\$)	14,934,396	190,901,340	270,813,634
Economic Contribution (\$)	1,153,519,292	10,270,738,193	15,444,948,970



Graphic adopted from Portland Cement Association



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Conversion Technology Overview:

Coastal Resources of Maine /Fiberight- Bangor, ME

Facility

- **Processing Capacity Max:** ~ 600 tpd of MSW
- **Recoveries:** Traditional Recyclables (Plastics, Metals, OCCs)
- **Products:** Fiber Pulp, Renewable natural gas, Solid recovered fuel

Economics

- **Investment:** \$70 Million
- **Tipping fees:** ~ \$70 per ton



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Recovered Material End Market Examples: Georgia-Pacific (GP), LLC Toledo, Oregon (start up 2021)

Process

- Juno Technology

Application

- Recycling technology at GP mill that recovers fibers mixed waste to make paper-based products.

GP Paper Mills in Florida:

- Hasford- O5B
- Palalka - Paper
- Perry- Foley Cellulose



Image courtesy of Georgia Pacific (GP)



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Recovered Material End Market Examples: AeroAggregates - Eddystone, PA

Feedstock

- MRF glass

Process

- Ultra-Lightweight Foamed Glass Aggregates (ULF)

Application

- Foaming waste glass used for durable construction material



Recovered Material End Market Examples: Continuus Material Recovery, LLC – Philadelphia PA

Feedstock

- Mixed paper
- Non recyclable plastics

Process

- Continuus EVERBOARD™
Roof Cover Board

Application

- Building materials created from recovered mixed paper and plastic



A Regional Approach: Sustainable Business Parks

- **Sustainable Business Parks**, known by several names:
 - Recovery Parks,
 - Eco-Industrial Parks (Eco Parks)
 - In academic circles: Industrial Symbiosis or Industrial Ecosystem
- **Key Characteristics:**
 - Business plan that creates a campus where companies/industries are next to solid waste processing facilities
 - Facilities use each other's by-products as inputs

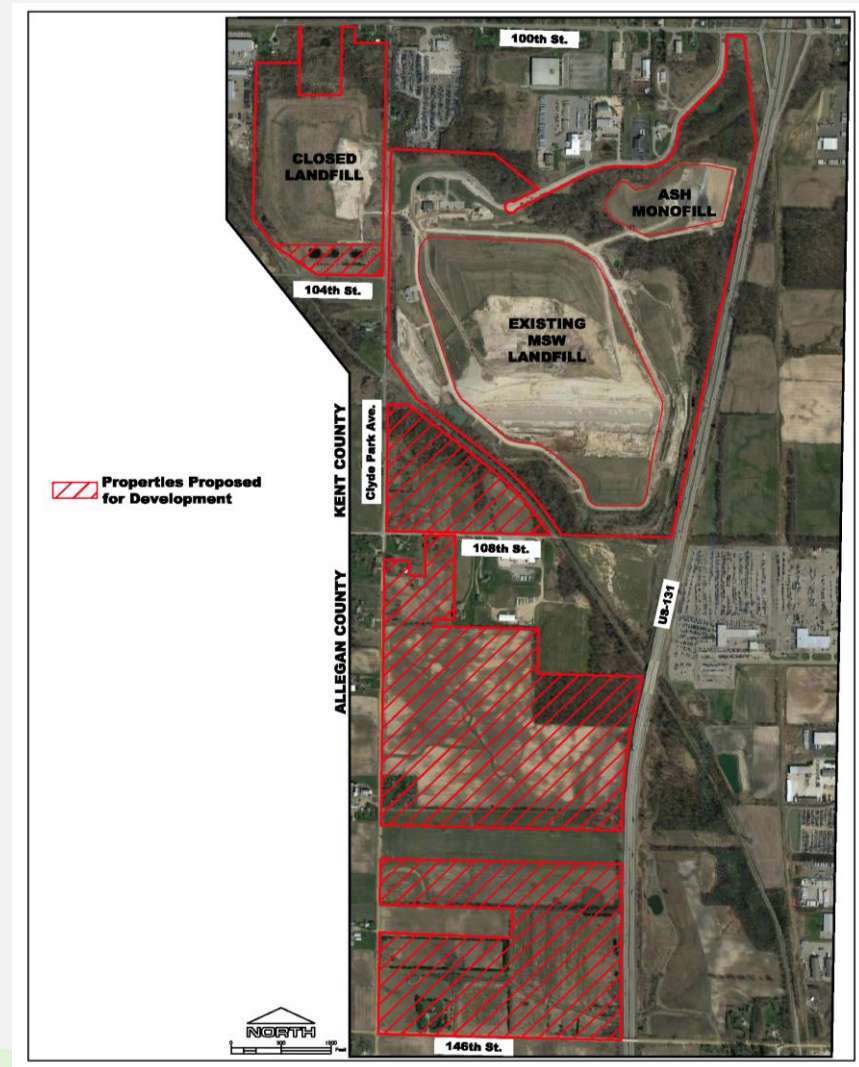


Image courtesy of Kent County Department of Public Works



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Thank you!

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*40 years
of Service*

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